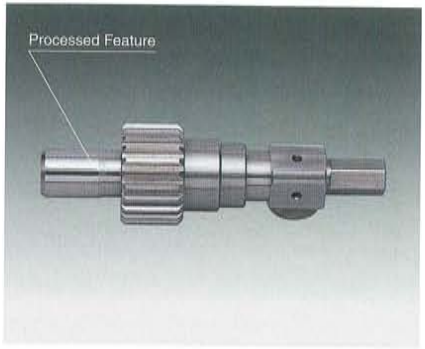
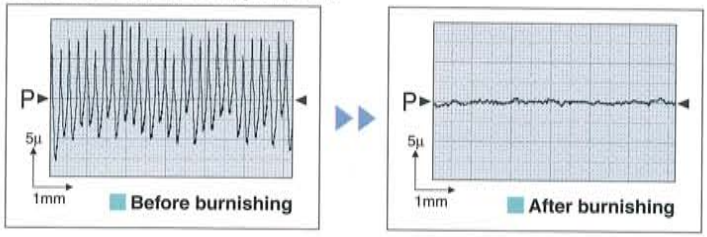
Processing Example — Gear Shaft



〔Machining Parameters〕

Model Number	CSA1200D				
Material	SUS303				
Processing Diameter	Inch	ø.472 x .551L		mm	ø12 x 14L
Surface Roughness	Ry μ Inch	Before	287.40	Ry μ m	Before 7.3
		After	23.63		After 0.6
Rotation Speed(RPM)	min^{-1}	710			
Feed Rate	Inch/rev	.016		mm/rev	0.4
Cycle Time	Sec.	3.3			

〔Surface Finish Comparison〕



Processing Parameters

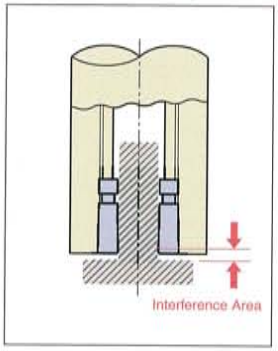
〔Description of Operation〕

1) Select the proper Superoll tool for the particular application.
2) Select the proper speeds and feeds to operate the tool.
3) After processing to depth, reverse the spindle rotation to counter clockwise and rapid traverse the tool out of the work piece.

〔Machining Parameters〕

Processing Diameter		Rotation Speed(RPM)	Feed	
Inch	mm	min^{-1}	Inch/rev	mm/rev
.119~.275	3 ~ 7	800~1,200	.008~.015	0.2~0.4
.296~.551	7.5~14	600~ 800	.008~.023	0.2~0.6

〔Tool Processing Limitations〕



Processing Diameter		Interference Area	
Inch	mm	Inch	mm
.119~.311	3~ 7.9	.032	0.8
.315~.551	8~14		

Note1. There is a .020"[0.5mm] interference area that will not be processed by the tool. Please see the illustration above.
2. To minimize the amount of interference between the bottom of a surface and the tool, the mandrel extrusion may be cut to the length of the roller protrusion.